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Delicious Diabetes Dishes

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WAYNE STATE
UNIVERSITY SCHOOL
OF MEDICINE



Delicious Diabetes Dishes

RECIPES AND RESOURCES
FOR THE TYPE 1 DIABETES
MANAGEMENT
OF DETROIT'S YOUTH

by Osama Alkhalili, Kiana Cabasa, Sikander
Chohan, Carly Conway, David Huynh,
Cassandra Keinath and Lavina Desai

About :

This cookbook and resource guide was created by a team of Wayne State University School of Medicine students, with the guidance of physician mentor Dr. Lavina Desai. The goal of this cookbook and guide is to help children with Type 1 Diabetes better manage their care. By maintaining a balanced diet and properly calculating meal time insulin dosages, blood glucoses levels can be better controlled resulting in both healthier happier children. The recipes in this book are all diabetes-friendly, tasty, and affordable.

While having a balanced diet is a challenge for many, we also recognize the added burden those who experience food insecurity may face. Our hope is that the recipes included in this book are accessible to all. As such, additional local resources on food banks and food pantries operating in our Detroit community can be found here as well.



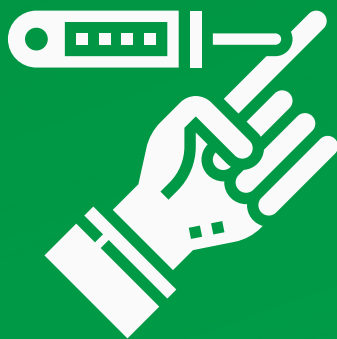
School of Medicine

Created June 2021

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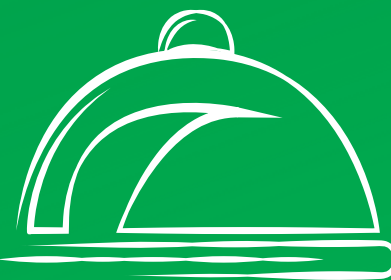
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How to Bolus :

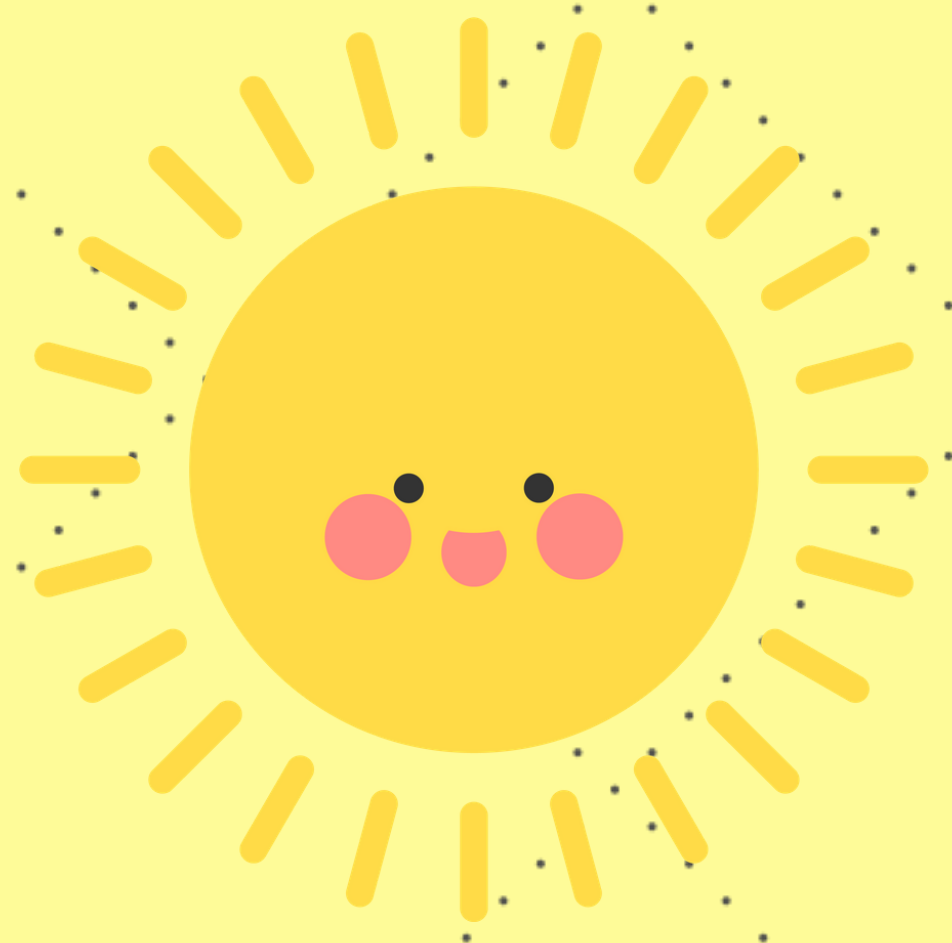


A **bolus** is a dose of insulin taken to manage an increase in blood glucose levels. Bolusing correctly is especially important when eating, as food is known to raise a person's blood sugar.

When calculating mealtime insulin dosages, several variables are important to consider. Such factors include knowing your target blood glucose, correction factor and personal insulin to carb ratio. These numbers will typically be assigned by your physician. A **target blood glucose** is exactly what it sounds like, it is your target, or goal, glucose level. A **correction factor** is a number that tells you how much one unit of insulin will generally lower your sugar. This is an important part of calculating the units of insulin you need to bring you back to your target. Lastly, your **insulin to carb ratio** is the number that tells you how many units of insulin to take for a specific amount of carbohydrates.

Once you know your personal target, correction factor and insulin to carb ratio, these numbers can be plugged into the following equations to calculate **total units of insulin** needed at mealtime.

Current Blood Glucose	—	Target Blood Glucose	=	Amount to Correct
Amount to Correct	÷	Correction Factor	=	Correction Bolus
Grams of Carbohydrates	÷	Carbohydrate Ratio	=	Carbohydrate Bolus
Correction Bolus	+	Carbohydrate Bolus	=	Total Units of Insulin



Breakfast

"Wellness is associated with happiness. When you're happy, you're feeling good in your mind and body. That ties into being healthy, eating well, and exercising regularly. It also ties into being excited about things - like getting up in the morning and having a healthy breakfast"

STELLA MAXWELL



PEANUT BUTTER AND BANANA TOAST

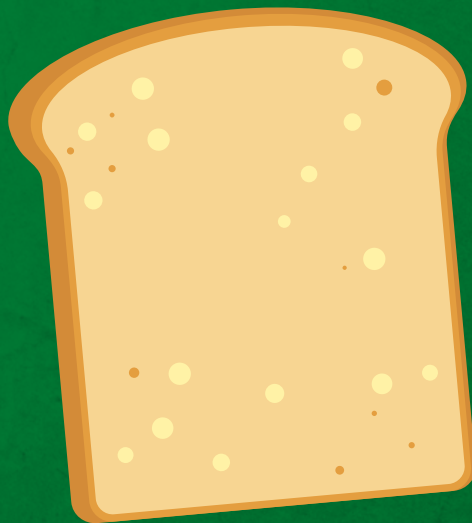
Ingredients:

- 1.5 Tbsp peanut butter (no sugar added)
- 1/2 banana
- 1 slice whole grain bread



Directions:

- Toast the bread
- Spread peanut butter on toast
- Slice half of peeled banana in thin circles
- Place banana slices on bread
- Enjoy!



Nutritional Information:

Serving Size: 1 slice	Calories per serving: 291	Fiber: 4.2 g
Total Fat: 14.6 g	Protein: 9.9 g	Total Carbohydrates 31.9g

Bolus Calculation:

- (grams of carbs=**31.9**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus**= total units of insulin

BERRY AND SPINACH SMOOTHIE

Ingredients:

- 1/2 cup frozen blueberries (add ice if using fresh berries)
- 1/2 banana
- 1 cup raw spinach
- 1/2 cup skim milk

Directions:

- Peel and slice banana in half
- Add blueberries, 1/2 banana, and spinach to blender
- Pour in skim milk
- Blend until smooth
- Serve immediately and enjoy!



Nutritional Information:

Serving Size: 1 cup
Total Fat: 0.8g

Calories per serving: 143
Protein: 6.3g

Fiber: 3.3g
Total Carbohydrates 34g

Bolus Calculation:

- (grams of carbs=**34**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus** = total units of insulin



Lunch

"Ask not what you can do for your country. Ask what's for lunch"

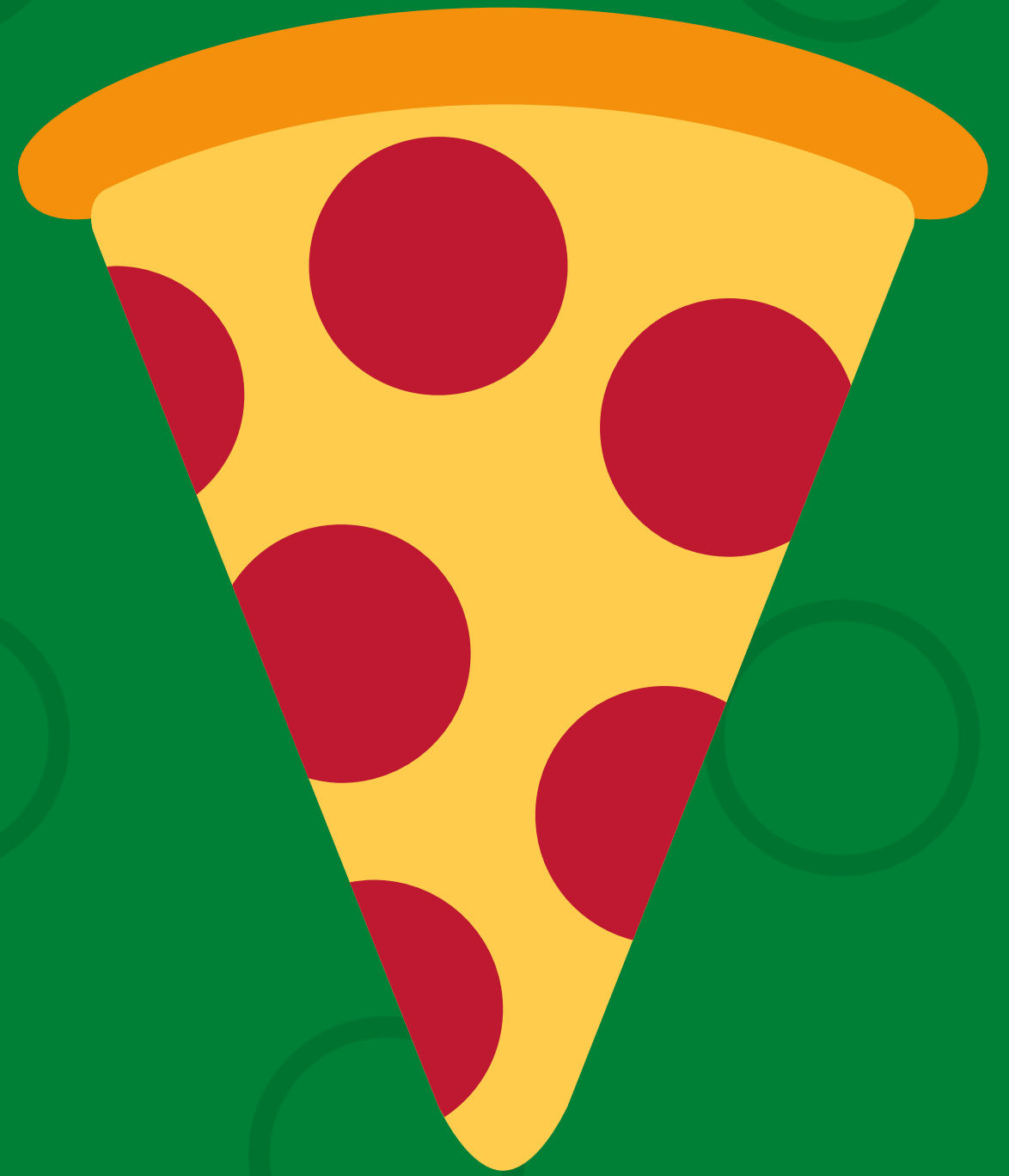
ORSON WELLES



PERSONAL PIZZA

Ingredients:

- 1 Low carb tortilla (Carb Balance)
- 3 TBSP tomato sauce
- Dash of Italian seasoning blend
- Dash of salt
- 1/2 ounce pepperoni
- 1 ounce mozzarella cheese



Directions:

- Heat oven to 450F
- Place tortilla on a baking sheet
- Combine tomato sauce and seasonings in a bowl
- Spread tomato sauce mix onto tortilla
- Top with cheese and pepperoni
- Bake at 450F for 10 minutes



Nutritional Information:

Serving size: 1 pizza
Total Fat: 12 g

Calories per serving: 210
Protein: 10.3 g

Fiber: 10.8 g
Total Carbohydrates: 16.5 g

Bolus Calculation:

- (grams of carbs=**16.5**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus** = total units of insulin

TURKEY WRAP

Ingredients:

- 1 low carb tortilla (Carb Balance)
- 2 oz turkey deli meat
- 1 slice of tomato
- 1 ounce shredded cheese
- 1/4 cup shredded lettuce
- 1 TBSP ranch dressing

Directions:

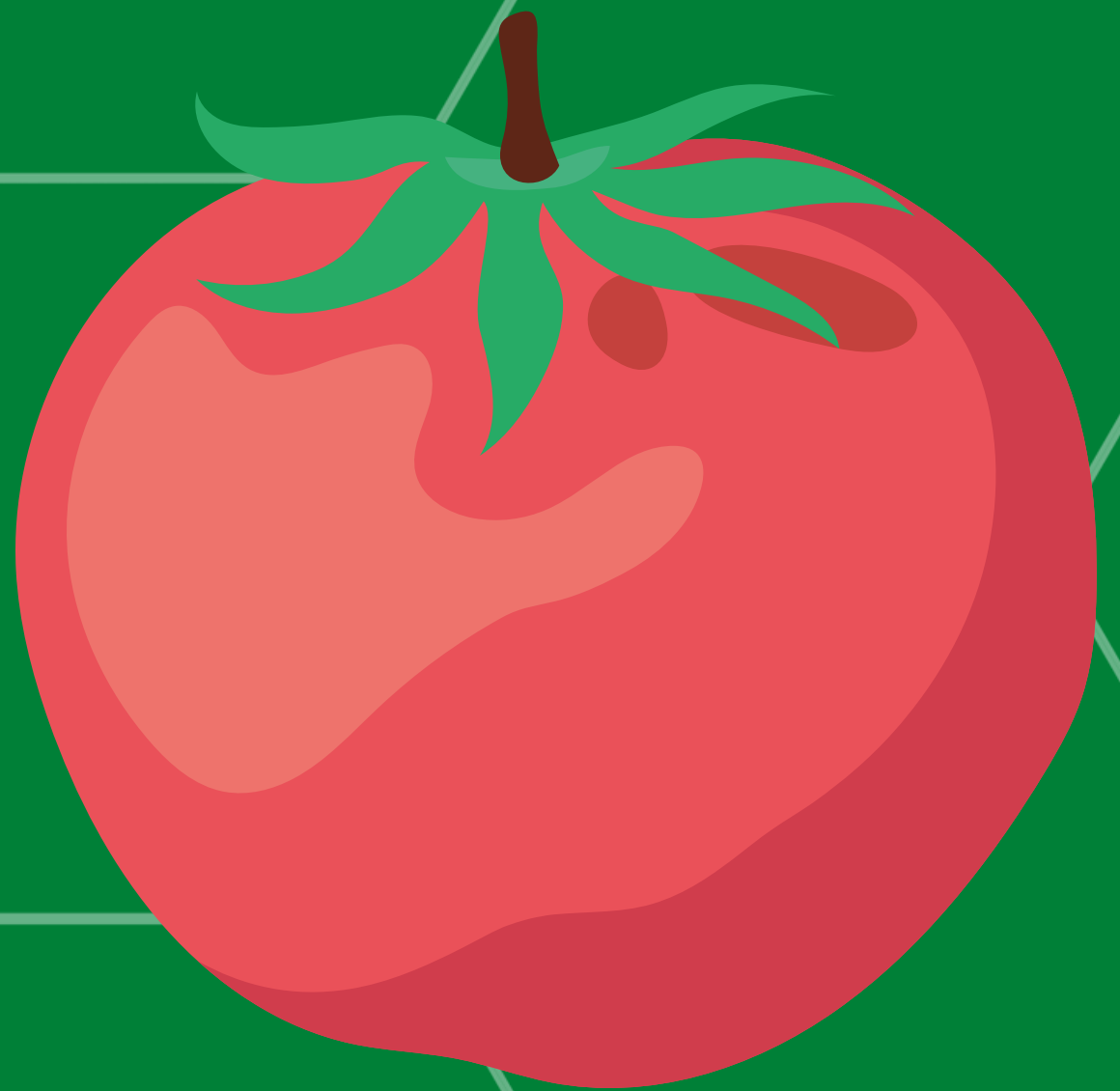
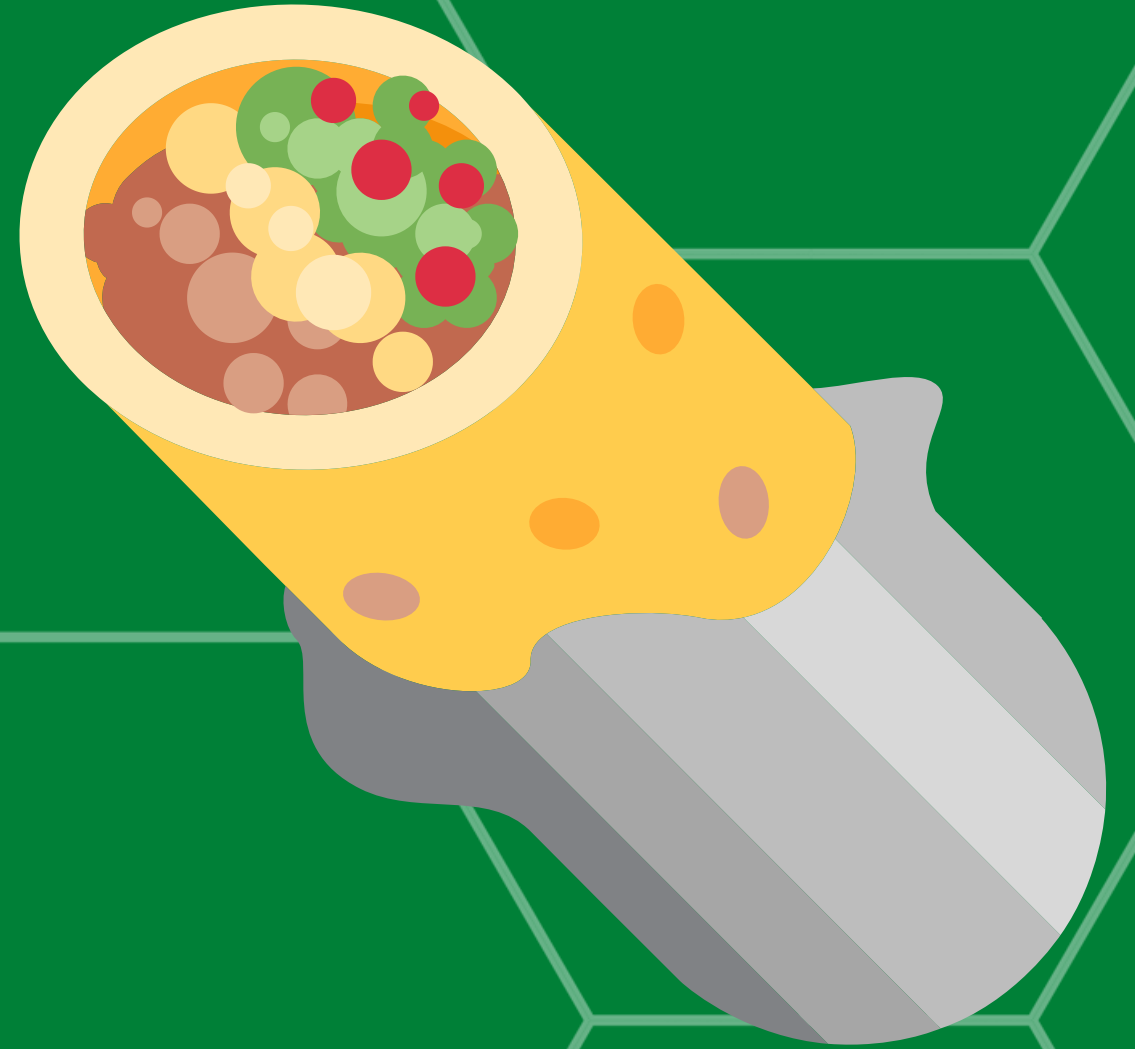
- Lay tortilla out flat on a plate
- Place turkey meat on tortilla
- Place slice of tomato on top of turkey
- Sprinkle shredded cheese on tortilla
- Sprinkle shredded lettuce on tortilla
- Pour ranch dressing over tortilla
- Roll tortilla to make a wrap

Nutritional Information:

Serving Size: 1 Wrap
Total Fat: 13.4 g

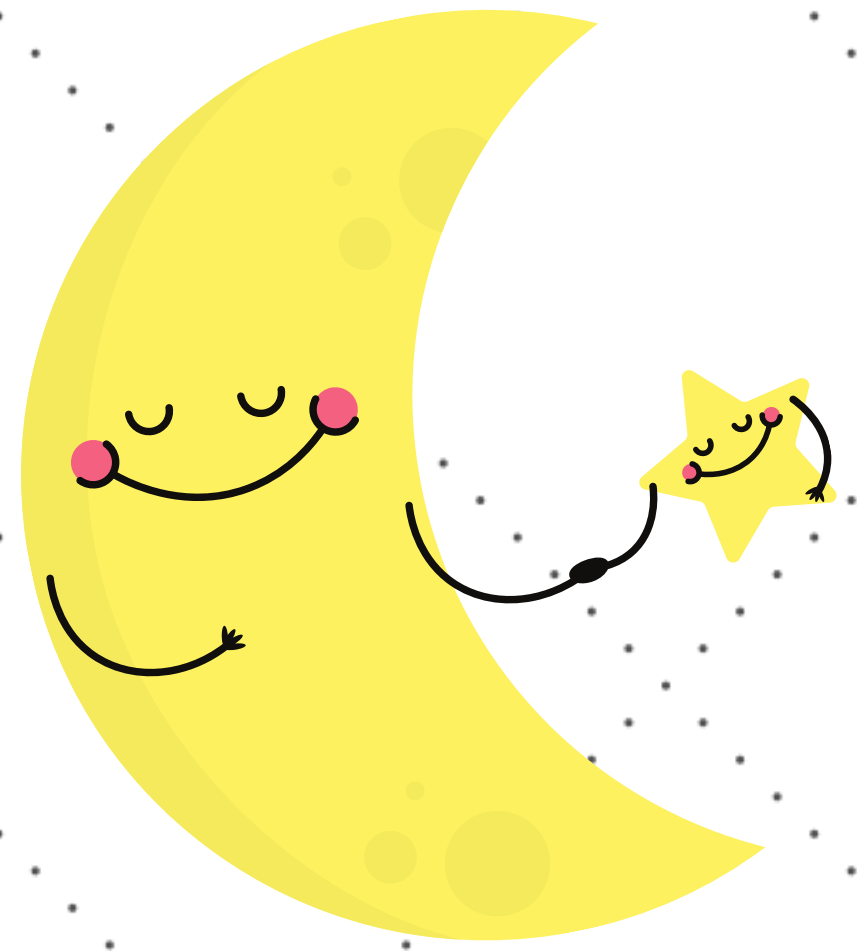
Calories per serving: 245
Protein: 15 g

Fiber: 10.3 g
Total Carbohydrates: 17.4 g



Bolus Calculation:

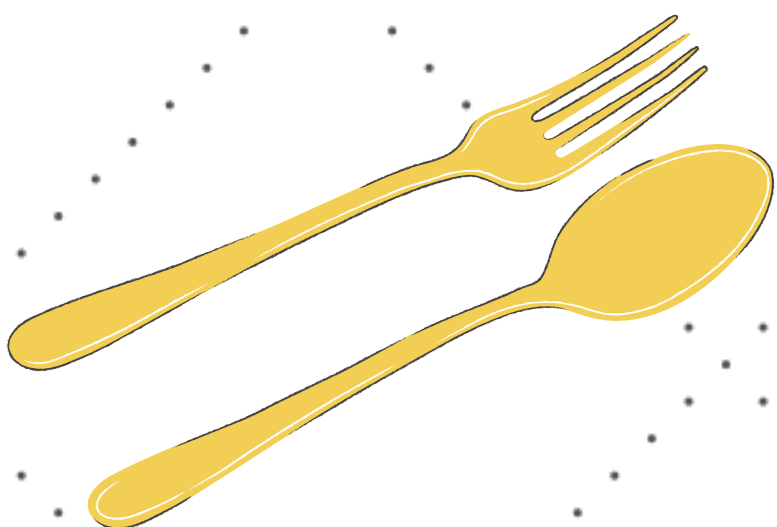
- (grams of carbs= **17.4**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus**= total units of insulin



Dinner

"The dinner hour is a sacred, happy time when everyone should be together and relaxed"

JULIA CHILD



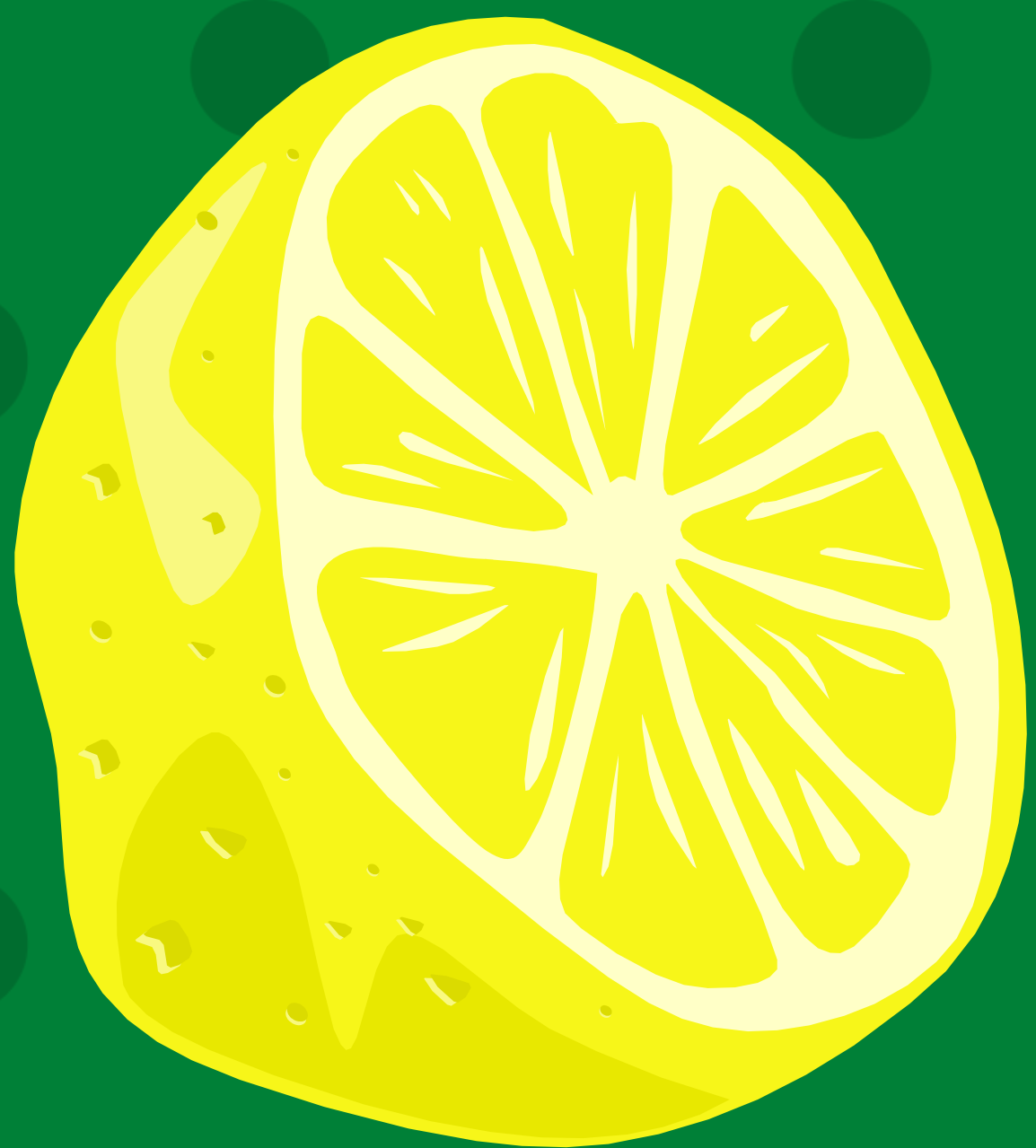
LEMON CHICKEN PASTA

Ingredients:

- 2 tsp olive oil
- 1 cup baby spinach
- 1/2 shredded rotisserie chicken
- 8 oz whole wheat spaghetti pasta
- 1 tsp of lemon juice, lemon zest
- Salt and pepper as needed

Directions:

- Add uncooked pasta to boiling water for 8 minutes
- Heat olive oil in large nonstick skillet
- Add spinach and chicken; cook 3-5 minutes
- Add cooked spaghetti, lemon juice, and lemon zest
- Add salt and pepper to taste



Nutritional Information:

Serving Size: 2
Total Fat: 15.3 g

Calories per serving: 350
Protein: 28.6 g

Fiber: 4.2 g
Total Carbohydrates: 26.9 g

Bolus Calculation:

- (grams of carbs = **26.9**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus** = total units of insulin

PAN-ROASTED CHICKEN AND VEGATABLES

Ingredients:

- 1 pound of russet potatoes, cut into 1/2 inches
- 1 large onion, coarsely chopped
- 2 tsp olive oil
- 1/2 tsp paprika
- 2 (8 oz.) boneless, skinless chicken breasts (cut in half)
- 6 cups broccoli
- Salt and pepper as needed

Directions:

- Preheat oven to 425 F
- In a large bowl, combine potatoes, broccoli, onion, oil, 3/4 tsp salt, and 1/2 tsp pepper; toss to coat
- Transfer to baking pan coated with oil/cooking spray
- In a small bowl, mix 1 tsp salt, paprika, and 1/2 tsp pepper.
- Sprinkle chicken with paprika mix
- Roast for 35-40 minutes
- Remove chicken, roast vegatbles until tender (8-10 minutes longer)

Nutritional Information:

Serving Size: 4

Calories per serving: 352

Fiber: 5.7 g

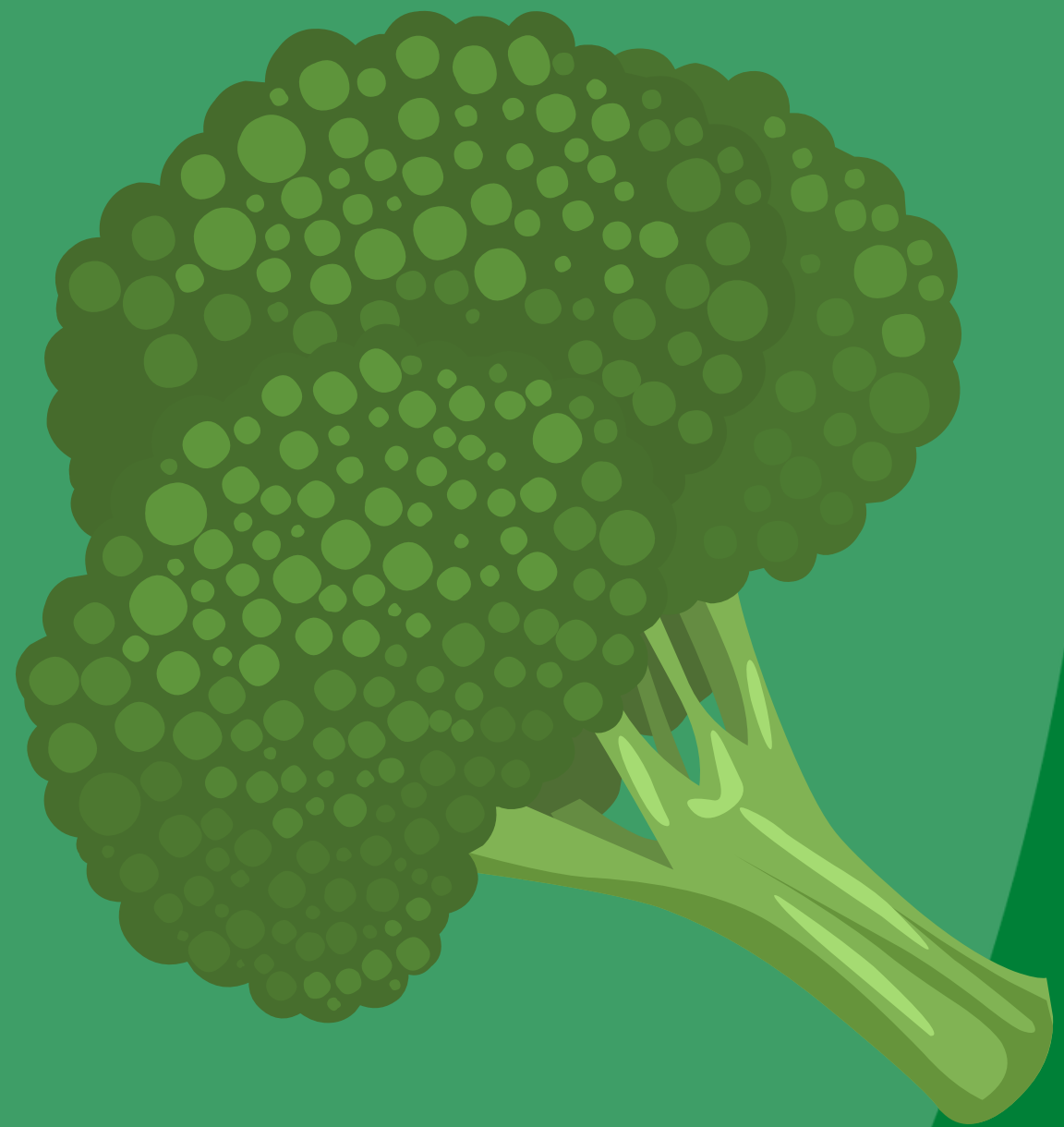
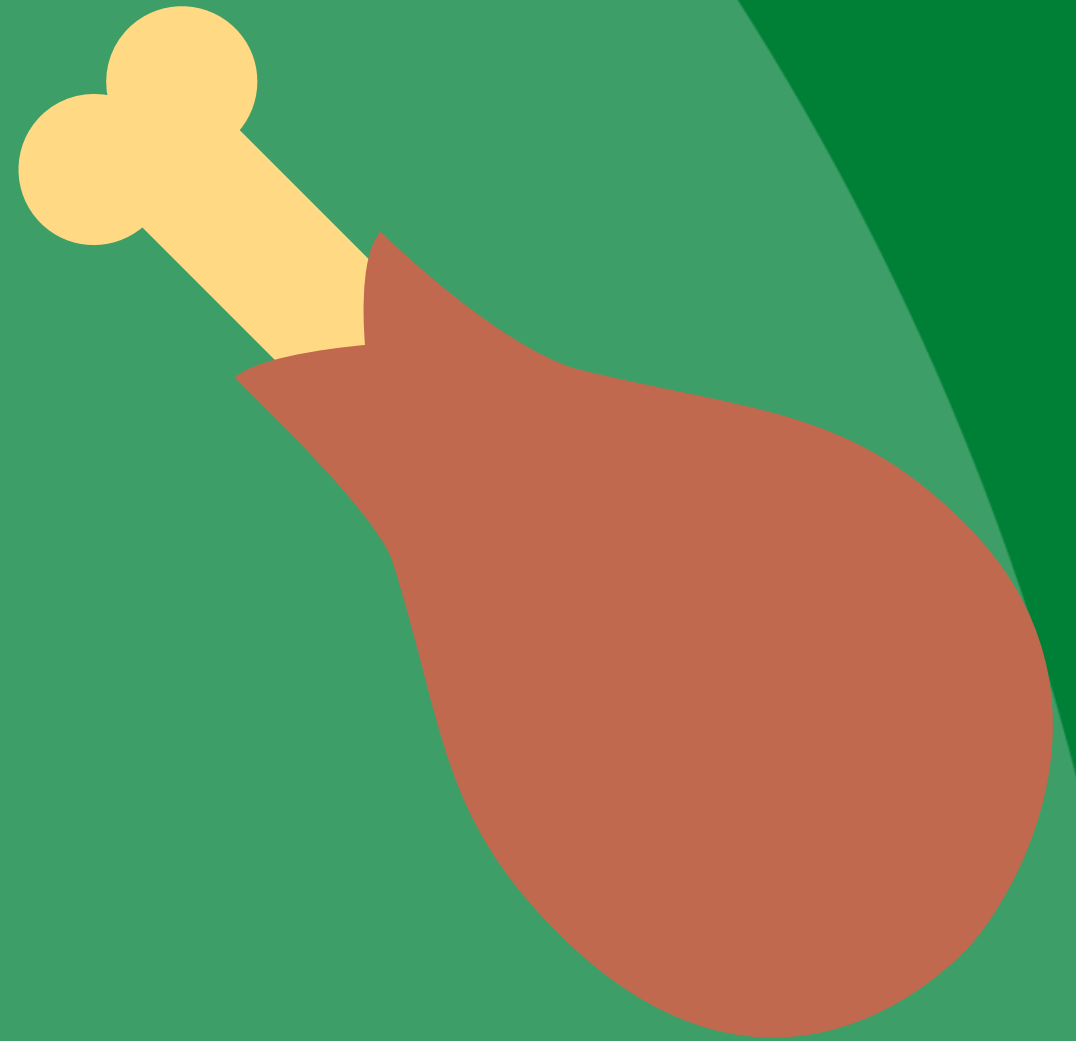
Total Fat: 13.8 g

Protein: 27.6 g

Total Carbohydrates: 30.7 g

Bolus Calculation:

- (grams of carbs = **30.7**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus** = total units of insulin





Dessert

"Desserts are the fairy tales of the kitchen—a happily-ever-after to supper"

TERRI GUILLEMETS



PEANUT BUTTER COOKIES

Ingredients:

- 1 cup peanut butter
- 1 egg
- 1/2 teaspoon vanilla extract
- 2/3 teaspoon zero-calorie sugar substitute (ex. splenda)
- 1/2 teaspoon baking soda

Directions:

- Preheat the oven to 350°F.
- Place all ingredients in a bowl and mix until smooth
- Scoop the dough with a spoon and roll into 12 evenly sized balls.
- Arrange dough balls on a cookie sheet around 1 inch apart
- Use a fork to flatten the tops of the dough balls just a little
- Bake for 12-15 minutes or until the edges turn brown.
- Remove from the oven and let the cookies sit for 2 minutes



Nutritional Information:

Servings: 12 cookies
Total Fat: 10.4 g

Calories: 140
Protein: 5.9 g

Fiber: 1.2 g
Total Carbohydrate: 4.2 g

Bolus Calculation:

- (grams of carbs=**4.2**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus** = total units of insulin

STRAWBERRY LEMONADE POPSICLES

Ingredients:

- 1/4 cup rolled oats
- 4 oz. low fat cottage cheese
- 4 cups whole strawberries
- 4 oz. of lemon juice, (about 4 lemons)
- 5 drops of liquid sweetener (ex. stevia)
- Popsicle molds

Directions:

- Place oats in a blender and blend until they become powder
- Add strawberries, lemon juice, cottage cheese, and liquid sweetener into the blender
- Continue blending until smooth texture forms
- Pour mixture into six popsicle molds
- Freeze popsicles for 3 hours or until solid

Nutritional Information:

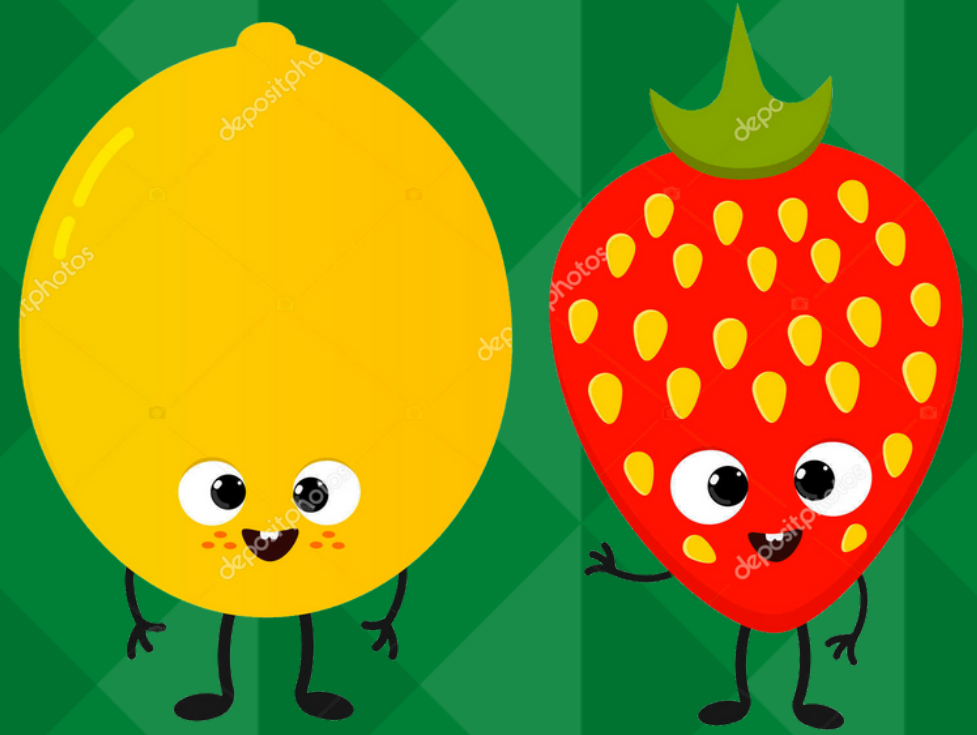
Servings: 6 popsicles
Total Fat: 0.5 g

Calories: 73
Protein: 3.5 g

Fiber: 2.0 g
Total Carbohydrate: 14 g

Bolus Calculation:

- (grams of carbs=**14**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus** = total units of insulin





Snacks

"Food is really and truly the most effective medicine"

DR. JOEL FUHRHAM



BABY CARROTS AND SPICY CREAM DIP

Ingredients:

- 1/3 cup sour cream (fat-free)
- 3 tbsp reduced-fat tub-style cream cheese
- 3/4 tsp hot pepper sauce
- 1/4 tsp salt
- 48 baby carrots

Directions:

- Stir the sour cream, cream cheese, pepper sauce, and salt together until well blended
- Let stand at least 10 minutes to develop flavors and mellow slightly
- Serve with carrots



Nutritional Information:

Serving Size: 2 Tbsps. dip plus 12 baby carrots
Total Fat: 2.0 g

Protein: 3.0 g

Calories: 73

Fiber: 3.0 g
Total Carbohydrate: 10 g

Bolus Calculation:

- (grams of carbs=**10**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus** = total units of insulin

NO MAYO EGG SALAD

Ingredients:

- 12 hard-boiled eggs
- 4 Laughing Cow Light Creamy Swiss Cheese Wedges
- 1 tbsp Dijon mustard
- 1 tsp horseradish
- 1/2 tsp salt (optional)
- 1/4 tsp black pepper
- 4 cups arugula

Directions:

- Crack and peel the hard-boiled eggs. Slice the eggs in half and discard the yolks.
- In a medium bowl, mash together egg whites, cheese wedges, mustard, horseradish, salt (optional) and ground black pepper using a potato masher or sturdy whisk. Pulse until combined but still slightly chunky
- Serve 1/2 cup egg salad mixture on top of 1 cup arugula
- You could also serve with arugula on toasted whole wheat bread for an open-face sandwich.

Nutritional Information:

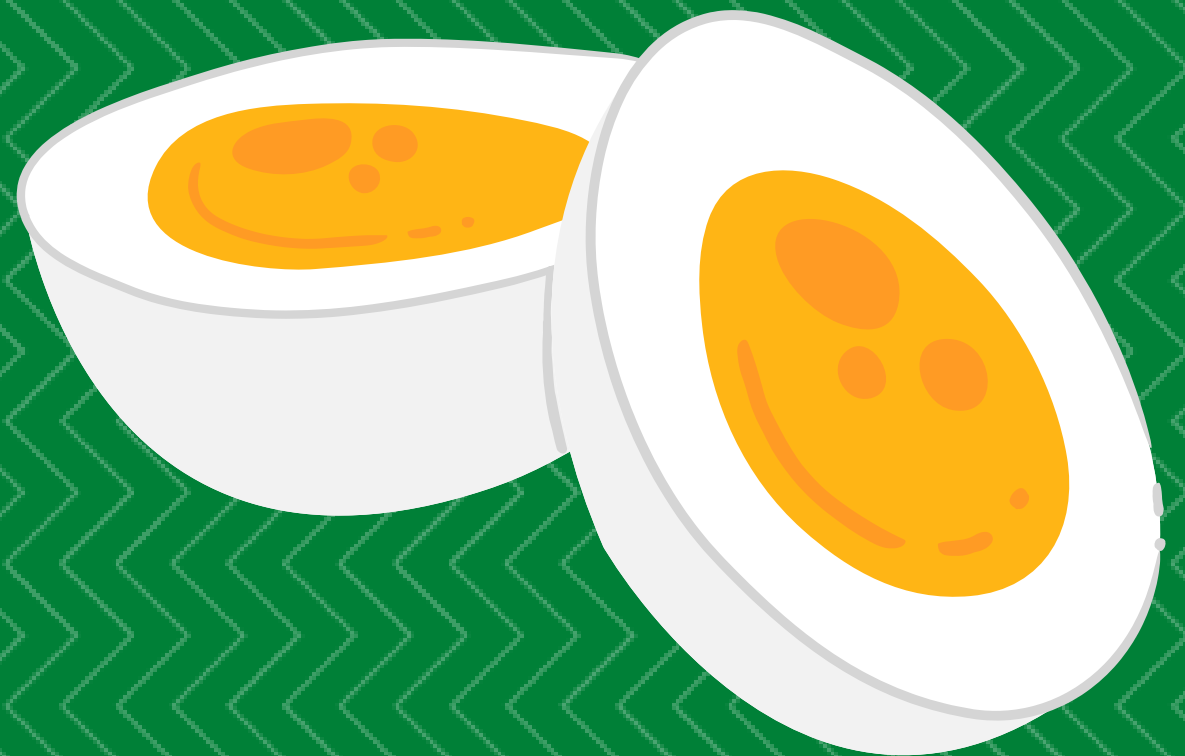
Serving Size: 1/2 cup egg salad on top of 1 cup arugula
Total Fat: 2.0 g

Protein: 13 g

Calories: 100 Fiber: 1.0 g
Total Carbohydrate: 3.0 g

Bolus Calculation:

- (grams of carbs=**3.0**) / (I:C ratio) = **carbohydrate bolus**
- (BG) - (target BG) = amount to correct
- (amount to correct) / (correction factor) = **correction bolus**
- **carbohydrate bolus** + **correction bolus** = total units of insulin



Additional Detroit Resources :

If you are someone you know if struggling with *food insecurity*, know you are not alone. According to the United States Department of Agriculture, 13.6% of households with children experienced food insecurity prior to the Coronavirus pandemic. This represents about 5 million children. However, as the pandemic progressed nearly 13.9 million children lived in households that struggled with food insecurity.

For children with diabetes, having access to good quality, nutritious food is essential for maintaining steady glucose levels and preventing episodes of *hyperglycemia* (high sugar) or *hypoglycemia* (low sugar).

As such, utilization of the following Detroit resources can be helpful in order to ensure adequate access to food. The recipes in this guide are relatively basic, and therefore, some ingredients for these recipes may be able to be acquired from local food banks or pantries.



Please note that days of service and hours of operation vary by location. For additional information, please call the associated telephone numbers listed for each location.

1. Gleaners Community Food Bank

2131 Beaufait Street
Detroit, MI 48207
Phone: (866) 453-2637

2. Covenant House of Michigan

2959 Martin Luther King Jr., Blvd
Detroit, MI 48208
Phone: (313) 463-2000

3. Wits Community Service

11638 Whittier Ave
Detroit, MI 48224
Phone: (313) 371-3930

4. Trinity Food Pantry

4849 W. Outer Dr.
Detroit, MI 48235
Phone: (313) 342-2288

5. St. Vincent de Paul Food Pantry

4311 Central Street
Detroit, MI 48210
Phone: (313) 841-0783

6. St. Paul United Methodist

8701 W. 8 Mile Rd
Detroit, MI 48221
Phone: (313) 342-4656

7. St. Patrick Food Pantry

58 Parsons Street
Detroit, MI 48201
Phone: (313) 833-7080

8. St. Jude Catholic Parish Food Pantry

15889 East Seven Mile Rd
Detroit, MI 48205
Phone: (313) 527-0380

9. Spirit of Hope

1519 Martin Luther King Blvd.
Detroit, MI 48208
Phone: (313) 964-3113

10. Grab Community Outreach

19264 Conant
Detroit, MI 48234
Phone: (313) 452-2797



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